

Besides, the authors used the organic carbon to the organic nitrogen ratio (C_{org}/N_{org}) as additional organic-geochemical indicator. The sapropels of the small lakes of Transbaikalia were found to have the lowest C_{org}/N_{org} ratios (5,7–7,0), which marks the autochthonic phytoplanktonic component of the OM. The West-Siberian lake have higher C_{org}/N_{org} ratios in the sediments and represent both autochthonic (water macrophytes) and allochthonic (mosses) OM sources [Melenevsky et al., 2015; Leonova et al., 2018].

The study is funded by RFBR-Novosibirsk Region grant 17-45-540527 p_a and RFBR grant 18-35-00072 mol_a.

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PALEOLIMNOLOGY INVESTIGATIONS OF THE ANZERSKY ISLAND, THE SOLOVETSKY ARCHIPELAGO, THE WHITE SEA

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A complex study of bottom sediments of lakes on different hypsometric marks allows reconstructing the shoreline moving and environmental changes in the Late Pleistocene and Holocene for the White Sea region. (Subetto, 2009; Kolka *et al.*, 2013). The method of isolated basins is used in the research. The lakes of the Solovetsky Archipelago and Onega Peninsula were investigated in numerous expeditions before (Subetto *et al.*, 2012, Leontev *et al.*, 2015, 2016).

In 2015 paleolimnological field research on the Anzersky Island (the Solovetsky Archipelago, the White sea) were held in the course of complex expedition on board of Northern Water Problems Institute scientific ship «Ecolog». The participants of expedition present Herzen State Pedagogical University (St-Petersburg); Northern Water Problems Institute Karelian Research Centre RAS (Petrozavodsk); Institute of Limnology RAS (St-Petersburg); Geological Institute Kola Science Centre RAS (Apatity), Moscow State University.

The field research included reconnaissance, study of the position of reservoirs, selection and visual inspection of the lakes, specification marks the water's edge and threshold runoff, bathymetric survey, sampling of modern sediments, sampling of selected lakes bottom sediments from the platform with using russian peat corer (for subsequent pollen, diatom, chironomid, grain size analysis, determining the weight of loss on ignition and radiocarbon dating), lithological description of the sediment cores.

With the aim of paleogeographic reconstruction the lakes were chosen at different hypsometric levels: Nadbannoye (21 m ASL), Bannoye (14 m ASL), Golgofskoye (11 m ASL) and Kaporskoye (6 m ASL) (Fig. 1).

The lithological analysis of the Anzersky Island lakes sediments allow to preliminarily attribute limno-glacial, marine, transition and contemporary lake sediments. The first results of the laboratory analysis and radiocarbon dating will be presented at the conference.

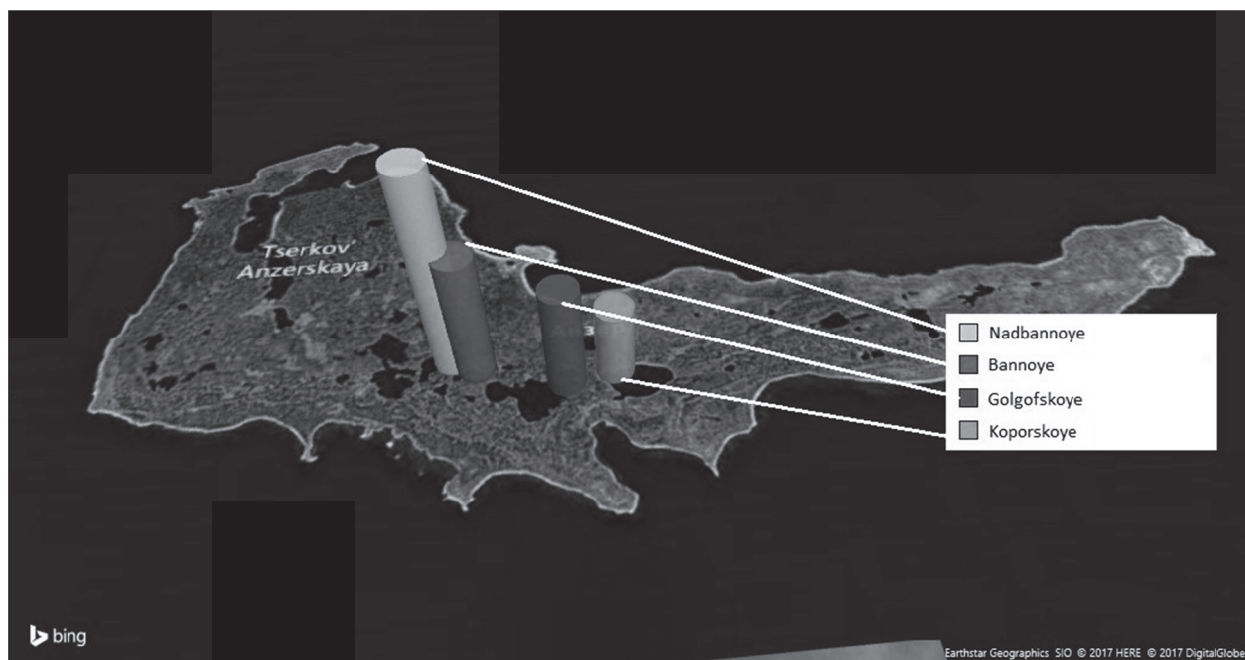


Fig. 1. Investigated lakes hypsometric position

The research is supported by RFBR, project 18-35-00707 mol_a.

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